DOCUMENT RESUME

ED 073 209 UD 013 287

AUTHOR Beers, Joan S.
TITLE Self-Esteem of Black and White Fifth Grade Pupils as a Function of Demographic Categorization.
PUB DATE 28 Feb 73
NOTE 44p.; Paper presented at the American Educational Research Association annual meeting, New Orleans, La., February 28, 1973, based on author's doctoral dissertation of Univ. of Pennsylvania, 1972

EDRS PRICE MF-$0.65 HC-$3.29
DESCRIPTORS Caucasian Students; *Elementary School Students; *Integration Effects; Negro Students; Psychoeducational Processes; Racial Balance; Racial Differences; *School Integration; School Segregation; *Self Esteem; Sex Differences; Social Differences; Social Integration; Socioeconomic Status
IDENTIFIERS *Pennsylvania

ABSTRACT

Do varying racial and social school mixtures significantly relate to self-esteem of black and white fifth-grade pupils? The purpose of the present study was to examine several facets of this question. Interrelationships were studied among pupil's self-esteem and the following demographic variables: school's racial composition, pupil's sex, pupil's socioeconomic status, and school's socioeconomic composition. The author takes the position that pupils' attitudes are just as important, if not more important, than scholastic achievement, particularly where attitudes are studied in relationship to school's and pupil's racial and socioeconomic groupings. Self-esteem was measured by 47 items from the Coopersmith Self-Esteem Inventory and six items from the Equality of Educational Opportunity Survey. Two samples were employed. Data were analyzed for 2753 white subjects from 72 schools throughout Pennsylvania. The samples were drawn from a larger Pennsylvania Department of Education state assessment sample of 20,000 subjects from 355 elementary school buildings throughout Pennsylvania. Data were collected in the fall of 1969. The results of this study have implications for pupils' assignments to buildings, as well as implications for the selection of teachers, the allocation of resources, and the offering of special programs. (Author/JM)

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SELF-ESTEEM OF BLACK AND WHITE FIFTH-GRADE PUPILS AS A FUNCTION OF DEMOGRAPHIC CATEGORIZATION

Joan S. Beers
Pennsylvania Department of Education

UD 013 287

Presented at the annual meeting of the American Educational Research Association, New Orleans, Louisiana, February 28, 1973. This paper is based on the author's doctoral dissertation, University of Pennsylvania, 1972. Supervisor: Arthur A. Dole.

SUMMARY

Self-Esteem of Black and White Fifth-Grade Pupils
as a Function of Demographic Categorization

Joan S. Beers, Pennsylvania Department of Education

Purpose

Are there significant differences in self-esteem among white and among black fifth-grade pupils when

a. school's racial composition differs?
b. pupil's sex differs?
c. pupil's socioeconomic status differs?
d. school's socioeconomic composition differs?
e. any two or more of the demographic variables combine?

Most of the literature does not speak directly to the focus of the present study. There is a tendency to label all black pupils as "disadvantaged" and to treat them as if they were an integral group. Moreover, there is an emphasis on negative characteristics of this group as compared to some assumed norm, usually middle-class white. Much of the research is directed at relationships between single variables despite increasing awareness that there are few if any phenomena which can be adequately explained on the basis of the interaction between only two variables. Finally, cognitive rather than affective variables receive most of the attention. The author takes the position that pupils' attitudes are just as important, if not more important, than scholastic achievement, particularly where attitudes are studied in relationship to school's and pupil's racial and socioeconomic groupings.

Method

Self-esteem was measured by 47 items from the Coopersmith Self-Esteem Inventory and six items from the Equality of Educational Opportunity Survey. Two 3 x 2 x 2 x 2 factorial analyses of variance were computed--one for white Ss and one for black Ss. Eight hypotheses were tested.

Data Source

Two samples were employed. Data were analyzed for 2,753 white Ss from 72 schools throughout Pennsylvania and 500 black Ss from 38 schools throughout Pennsylvania. The samples were drawn from a larger Pennsylvania Department of Education state assessment sample of 20,000 Ss from 355 elementary school buildings throughout Pennsylvania. Data were collected in the fall of 1969.

Significant Results for White Pupils ($p < .01$)

Ss in schools where the percentage of black pupils was less than 5 had higher self-esteem than Ss in schools where the percentage of black pupils was more than 25. This finding was clarified further by whether the pupil was a boy or a girl and by whether the pupil was in a low socioeconomic status school or in a middle socioeconomic status school. Middle-status Ss had higher self-esteem than low-status Ss. Ss in middle socioeconomic status schools had higher self-esteem than Ss in low socioeconomic status schools.

Significant Results for Black Pupils ($p < .01$)

Ss in schools where the percentage of black pupils was more than 50 had higher self-esteem than Ss in schools where the percentage of black pupils was less than 25. Middle-status Ss had higher self-esteem than low-status Ss. Ss in low socioeconomic status schools had higher self-esteem than Ss in middle socioeconomic status schools.

Educational Importance of Study

School districts can neither control nor alter the race, the sex, or the social status of their pupils. They can, in some instances, exert some control over the racial and socioeconomic compositions of elementary school buildings. They can, in most instances, exert control over the selection of teachers, the amount and quality of resources in any one building and the types of programs offered. The results of the present study offer implications for pupils' assignments to buildings, as well as implications for the selection of teachers, the allocation of resources and the offering of special programs. Caution must be exercised in interpreting the results, however, since the study was not experimental.

Self-Esteem of Black and White Fifth-Grade Pupils as a Function of Demographic Categorization

Purpose

A long series of attacks on segregated schooling began in the early 1900's and culminated in 1954 with the Brown v. the Board of Education decision. The "separate but equal" principle was to stand no longer. Chief Justice Warren stated in his court opinion that

> . . . to separate them [black children] from others of similar age and qualifications solely because of their race generates a feeling of inferiority as to their status in the community that may effect their very hearts and minds in a way unlikely ever to be undone . . . . We conclude that in the field of public education the doctrine of "separate but equal" has no place. Separate educational facilities are inherently unequal [Stoff, 1967, p. 7].

Since 1954, the issues surrounding the racial composition of schools have been accompanied by great quantities of emotion, volumes of theorizing, but little systematic theoretical research. Speaking in 1956 at the annual meeting of the New York State Psychological Association, Cook (1963) stated that the 1954 Supreme Court decision on segregation offered opportunities for research that would increase our understanding of the process of change in interpersonal relations between social groups. The decision provided a "rare opportunity" to acquire essential knowledge. He stated further that there was a tendency to overestimate the probable effects from the change in school patterns, both among the liberals who hoped that desegregation of schools would lead to desegregation in all aspects of life and among many Southerners who feared that it

would. He spoke of the schools as a "natural laboratory."

It appears, however, that few researchers have taken advantage of the "rare opportunity" in the "natural laboratories" and that much needed knowledge is still in its primary stages. Testifying before a House education subcommittee in June 1970, psychologist Arthur Jensen and sociologist Ernest Van Den Haag (Behavior Today, 1970) urged Congress to require scientifically valid research on the educational effect of compulsory school desegregation. Jensen stated his belief that the educational abilities and needs of the majority of white and black children were sufficiently different and that both groups would be cheated if uniformity rather than diversity became the rule. Van Den Haag charged that the courts had been misled in the early 1950's with the thesis that "psychological injury" can be caused by racial segregation. Also, it is becoming increasingly evident that the issue is not only an educational one, but a political and social one as well. School districts are faced with court orders to desegregate, while at the same time housing patterns are racially and socioeconomically unbalanced, and anxious parents are desiring to maintain the neighborhood school. "Busing" may well have become the most explosive word of the decade.

Cohen (1970) noted that American ideology holds that schooling is the best remedy for inequalities of social and economic opportunity. The ideology implies also that social reform will not arise from the aggregate redistribution of social and economic status but from the maintenance of merit standards on the basis of which qualified individuals can effect a personal redistribution. Finally, it

is widely believed that, although public education provided the means by which southern and eastern Europeans moved into the social, cultural, and political mainstream, "it is not currently performing the same service for blacks [p. 15]."

The national commitment to eliminate segregation is based on broad goals and values of society. O'Reilly (1969) stated that given this commitment, it is vitally important that all systematic knowledge be brought to bear on making the process of desegregation as psychologically and educationally effective as possible.

Do varying racial and social school mixtures significantly relate to self-esteem of black and white fifth-grade pupils? The purpose of the present study was to examine several facets of this question. Interrelationships were studied among pupil's self-esteem and the following demographic variables:

School's racial composition

Pupil's sex

Pupil's socioeconomic status

School's socioeconomic composition

Definition of Terms

Racial Composition (RC) is defined as the combination, in percentages, of black and white pupils in the fifth grade. St. John (1970) suggested the term "racial composition" since, she stated, neither educators nor social scientists agree on the definition of other terms such as "racial balance," "desegregation," or "integration."

Sex is defined as the gender of the pupil.

Socioeconomic Status (SES) is defined as the relative social status of the pupil as measured by the occupational and educational attainments of his guardian.

Socioeconomic Composition (SEC) is defined as the combination, in proportions, of "low-status" and "middle-status" pupils in the school. Levin (1968) noted that family background characteristics of a set of pupils determine not only the advantages with which they come, to school, but also are associated closely with the amount and quality of resources invested in the school.

Self-Esteem is defined as a personal judgment of self-worthiness. The views one has of his adequacies, his inadequacies, his values, and his desires all contribute to one's degree of self-esteem.

Research Question

Are there significant differences among white and among black fifth-grade pupils in self-esteem when:

a. school's racial composition differs?

b. pupil's sex differs?

c. pupil's socioeconomic status differs?

d. school's socioeconomic composition differs?

e. any two or more of the social variables combine?

Related Literature

Racial Composition, Socioeconomic Status, Sex, and Socioeconomic Composition

The most comprehensive study conducted on the relationships between racial composition and pupil's achievement was the Equality of Educational Opportunity Survey (Coleman, J., Campbell, E., Hobson, C., McPartland, J., Mood, M., Weinfeld, F., & York, R., 1966). The investigators administered a series of achievement tests and questionnaires to more than 600,000 Ss in 4,000 elementary and secondary schools. Verbal ability scores which showed more variation than other tests scores, were used as the chief measures of academic achievement. The study made available, for the first time, evidence on the extent of ethnic segregation and academic retardation for minority group children. Coleman's study showed that northeastern, sixth-grade, black pupils achieved highest in reading comprehension in schools where the proportion of white classmates was more than 50%, next highest in schools where the proportion of white classmates was 0, less higher in schools where the proportion of white classmates was 50%, and lowest in schools where the proportion of white classmates was less than 50%. The differences, however, were extremely small.

O'Reilly (1969) reviewed the literature on the relationships between racial composition and pupil's achievement and concluded that "the racial composition of the school appears to have a slight (or no) relation to educational development in either whites or Negroes [p. 24]."

The literature indicates that racial factors cannot be considered apart from family background factors. St. John (1970) stated that, since family background factors are positively related to the achievements of both black and white pupils, it is "crucial to control them in any study of the influence of ethnic composition [p. 113]."

There is some evidence to suggest that sex may be a relevent variable particularly for black Ss. Deutsch (1967), over a three-year period, studied 400 Ss in two northern urban schools as they progressed from fourth through sixth grade. The racial compositions of the schools were 99% black and 94% white. The socioeconomic levels of the Ss were similarly low. Black girls significantly outperformed black boys in reading and arithmetic on the Stanford Achievement Test. Moreover, black girls, in comparison to black boys, less often reported a negative family atmosphere, or a negative self-image and were more popular with their peers. White girls performed better than white boys only in reading.

Deutsch stated that the social role expectations for the black girl were less in conflict with middle-class value systems than for the black boys. The tendency for black families to be matriarchal provides the girl with an identification model, while the boy is often left with no strong personal male figure with whom to identify.

As a corollary, the Ausubels (1963) observed that one of the most striking features of ego development in the segregated black community was the relatively more favored position enjoyed by girls. Girls showed superiority in academic, personal, and social adjustment. They had higher achievement needs, assumed more responsible

roles, and completed more education at all levels.

Pettigrew (1967), after reanalyzing some of the Coleman data, reported that the most significant school correlate of achievement test scores in the Coleman study was the social class climate of the school. "Put bluntly, children of all backgrounds tend to do better in schools with a predominately middle-class milieu . . . [p. 1]." After reviewing the literature on socioeconomic composition and scholastic achievement, O'Reilly (1969) concluded that

> The social class composition of the school has been established as an educationally relevant dimension, with substantial implications for the educational and social development of socially and economically disadvantaged students in general. Negro and Puerto Rican students are much more likely to be subjected to any negative effects resulting from school social class composition, since they are more likely to attend schools consisting of predominately lower class students at the elementary level, where it appears to make the most difference. White students are also likely to be affected by attendance in predominately lower status schools although to a lesser extent [p. 238].

O'Reilly (1969) concluded further that schools are likely to be educationally effective for the disadvantaged minority group if the proportion of lower-status students in the school does not exceed roughly 30%.

Self-Esteem

There is some evidence that school's racial composition is not related to white pupils' self-esteem (Coleman, et al., 1966; Caplin, 1968; O'Reilly, 1969; Zirkel & Moses, 1971). Girls had higher self-esteem than boys in two studies (Soares & Soares , 1969: Greenberger, Campbell, Sorensen, and O'Connor, 1971) and middle-status pupils had higher self-esteem than low-status pupils in one

study (Greenberger et al, 1971).

Trowbridge (1970) administered the Coopersmith Self-Esteem Inventory to "disadvantaged" and middle-class students in 64 classrooms. Self-esteem was found to be significantly higher among the culturally disadvantaged whether or not the schools were integrated.

There is some evidence that black pupils' self-esteem increases as the proportion of black pupils in the school increases (Coleman et al, 1966; Soares & Soares, 1969). Black girls had higher self-esteem than black boys in two studies (Ausubel & Ausubel, 1963; Deutsch, 1967). There is no empirical evidence on the relationship between social class and self-esteem for black pupils.

Conclusions from the Literature

Most of the literature does not speak directly to the focus of the present study. The tendency was to treat the "disadvantaged" as if it were a meaningful and integral group. Moreover, emphasis was placed on negative characteristics or deficits of this group as compared to some assumed norm, usually middle-class white. In those studies in which social class as well as race were considered, in only one study (Brozovich, 1970) were middle-class pupils used as subjects. Edington (1970) stated that it is known that "disadvantaged" are poor and deficient. Such studies are not very helpful to educators. Research involving more detailed analysis is needed for educators to develop effective compensatory and developmental programs that provide alternate routes to learning.

Most of the literature was directed at relationships between single variables despite increasing awareness that there are

few if any phenomena which can be adequately explained on the basis of the interaction between only two variables. Gordon (1970) noted that "too little attention is given to the examination of multiple interactions and multiple relationships in the genesis of behavior or behavior change [p. 11]."

Furthermore, while there is some agreement (Coleman et al., 1966; O'Reilly, 1969) that white pupils are not adversely affected by attending integrated schools, there is little empirical evidence to support these conclusions.

One of the reasons for the paucity of research relating social variables to pupils' attitudes is that cognitive rather than affective variables received most of the attention. Reviewing the literature on desegregation and minority group performance, St. John (1970) stated that although the subject of her review should have been the relationship of racial composition to children's total intellectual, emotional, and moral development, in most of the research scholastic achievement was the sole criterion variable.

The focus of the present study is on the relationship (s) between self-esteem and two school variables (racial composition and socioeconomic composition), and two pupil classifications (sex and socioeconomic status).

Research Hypotheses

The expected relationships (main effects) between self-esteem and the independent variables are as follows:

White Pupil's Self-Esteem

		Hypothesis
A	School's Racial Composition	Null
B	Pupil's Sex	Girls score higher
C	Pupil's Socioeconomic Status	Middle-status pupils score higher
D	School's Socioeconomic Composition	Pupils in middle socioeconomic status schools score higher

Black Pupil's Self-Esteem

		Hypothesis
A	School's Racial Composition	Scores increase as the proportion of black pupils increases
B	Pupil's Sex	Girls score higher
C	Pupil's Socioeconomic Status	Middle-status pupils score higher
D	School's Socioeconomic Composition	Pupils in middle socioeconomic status schools score higher

Procedure

The Sample

Two samples were employed--a sample of white fifth-grade Ss and a sample of black fifth-grade Ss. Both samples were drawn from a larger Pennsylvania Department of Education (PDE) stratified, random, cluster sample. All of the black pupils in the PDE's sample were included in the sample for the study. Data were analyzed for 550 Ss from 38 schools.

Table 1 presents a description of the black sample classified by school's racial composition.

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Insert Table 1 about here

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The sample of white pupils for the present study included all of the white pupils in the schools from which the sample of black pupils was drawn. From the more than 300 schools in the PDE's sample in which the proportion of black pupils was less than 5%, every tenth school on the list was selected. Data were analyzed for 2,753 Ss from 72 schools.

Table 2 presents a description of the white sample classified by school's racial composition.

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Insert Table 2 about here

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TABLE 1

Number of Schools and Black Pupils

Classified by Racial Composition of School

Racial Composition	Schools	Black Pupils
More than 50% black	5	309
25-50% black	4	68
Less than 25% black	29	173
Total	38	550

TABLE 2

Number of Schools and White Pupils

Classified by Racial Composition of School

Racial Composition	Schools	White Pupils
More than 25% black	11	182
5-25% black	29	1268
Less than 5% black	32	1303
Total	72	2753

Measurement

The self-esteem inventory contains 53 items. Forty-seven of the items are from the self-esteem inventory (Coopersmith, 1967) and the remaining six items are from Coleman's (1966) Equality of Educational Opportunity survey. Several reliability estimates ranging from .85 to .89 are reported by Ketcham (1965), Coopersmith (1967), and Beers (1970).

Likert analysis revealed that 49 of the items correlated at least .20 with the total score and three of the remaining four items correlated at least .16 with the total score. All but one of the items discriminated significantly ($p < .01$) between the highest-scoring 27% and the lowest-scoring 27%.

The principal-components factor solution revealed a general factor, self-esteem, supporting the use of a total score for the inventory. Factor 1 of the principal-components solution involved 52 of the items with factor loadings of at least .43 and one item with a factor loading of .33.

Most of the factor loadings were substantial (.40+) on just one of the factors. Factor 1 involved those items in which pupils expressed confidence or lack of confidence in their capacity to fulfill some of their hopes and ambitions. Items such as "Luck decides most things that happen to me," and "If I work hard, I can be what I want to be" were included in Factor 1. PDE researchers labeled Factor 1 "Control of Environment."

Factor 2 contained those items in which pupils referred to relationships with parents and reflected judgments about their ability

to present a favorable impression to others. Items such as "My parents and I have a lot of fun together," and "I'm not as nice looking as most people" were included in Factor 2. The factor was labeled "Relating to Others."

Factor 3 reflected those items in which pupils expressed opinions about themselves in relation to teachers and schools. Items such as "I like to be called on in class," and "I often get discouraged in school" were included in Factor 3. The factor was labeled "Achieving in School."

Factor 4 reflected those items in which pupils revealed a sense of adequacy or inadequacy or security or insecurity about themselves in general. Items such as "I'm pretty sure of myself," and "I often wish I were someone else" were included in Factor 4. The factor was labeled "Personal Attributes."

Pupil's race and school's racial composition were scaled. Pupils identified themselves as black, white, or other. School's racial composition was computed from the responses to the race item. The percentage of black respondents in the fifth grade defined the racial composition of the school. The author decided the school's racial composition category after the fact. The author hoped that both the white and black samples would contain enough cases to include Ss both in the minority and the majority racial groups in their respective schools. In the white sample, there were not enough respondents in the minority group to form a category. Therefore, it was necessary to collapse the cells into three categories: more than 25% black, 5-25% black, and less than 5% black.

In the black sample, Ss are both in the majority and the minority. The three categories are: more than 50% black, 25-50% black, and less than 25% black.

Pupil's socioeconomic status and school's socioeconomic composition were scaled. Teachers coded the occupation of the pupil's father and mother on the Reiss (1961) listing of occupations. The Reiss index is scaled from 1 to 96. Dentists have a weight of 96 and miners have a weight of 1. Reiss derived the index from a regression equation based upon the median income level and the median level of educational attainment associated with each occupation.

The median income in 1960 in Pennsylvania was $4,652 (Department of Commerce, 1960). The 1970 census data were not available at the time of the study. With few exceptions, the median income for occupations scaled 15 or below on the Reiss listing was below $4,500. The author categorized Ss with scores above 15 as middle SES and Ss with scores at 15 or below as low SES.

School's socioeconomic composition was based upon the percentage of low-status pupils in the school. O'Reilly (1969) concluded that schools are likely to be educationally effective if the percentage of lower-status pupils in the school does not exceed roughly 30. Based on O'Reilly's conclusion, the author classified those schools in which the proportion of low-status pupils was less than one-third as middle socioeconomic status schools, and those schools in which the proportion of low-status pupils was one-third or more as low socioeconomic status schools.

Design

The design is a four-way factorial analysis of variance. For each sample the 3 x 2 x 2 x 2 factorial analysis of variance was computed. Figure 1 illustrates the design for the white sample. Figure 2 illustrates the design for the black sample.

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Insert Figure 1 about here

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Insert Figure 2 about here

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3 X 2 X 2 X 2 = 24

		C_1 Low		C_2 Middle		
		B_1 Boys	B_2 Girls	B_1 Boys	B_2 Girls	
D_1 Low SEC	A_1 More than 25% black	1	2	13	14	A X B
	A_2 5-25% black	3	4	15	16	A X C
	A_3 Less than 5% black	5	6	17	18	A X D
D_2 Middle SEC	A_1 More than 25% black	7	8	19	20	B X C
	A_2 5-25% black	9	10	21	22	B X D
	A_3 Less than 5% black	11	12	23	24	C X D

A Racial Composition — A X B X C

B Sex — A X B X D

C Socioeconomic Status — A X C X D

D Socioeconomic Composition — B X C X D

A X B X C X D

FIG. 1. Analysis of variance model for white pupils.

3 X 2 X 2 X 2 = 24

			C_1 Low		C_2 Middle		
			SES				A
							B
			B_1 Boys	B_2 Girls	B_1 Boys	B_2 Girls	C
			Sex		Sex		D
D_1 Low SEC	RC	A_1 More than 50% black	1	2	13	14	A X B
		A_2 25-50% black	3	4	15	16	A X C
		A_3 Less than 25% black	5	6	17	18	A X D
D_2 Middle	RC	A_1 More than 50% black	7	8	19	20	B X C
		A_2 25-50% black	9	10	21	22	B X D
		A_3 Less than 25% black	11	12	23	24	C X D

A Racial Composition	A X B X C
B Sex	A X B X D
C Socioeconomic Status	A X C X D
D Socioeconomic Composition	B X C X D
	A X B X C X D

FIG. 2. Analysis of variance model for black pupils.

Results

Self-Esteem for White Pupils

Table 3 summarizes the results of the four-way analysis of variance on self-esteem for white Ss.

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Insert Table 3 about here

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Table 4 presents the weighted means and standard deviations for self-esteem for white Ss.

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Insert Table 4 about here

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There was a significant ($p \leq .01$) F ratio for pupil's self-esteem and school's racial composition. Table 4 reveals that Ss in schools where the proportion of black pupils was below 5% scored highest in self-esteem. Ss in schools where the proportion of black pupils was more than 25% scored lowest in self-esteem.

The main effect for sex and self-esteem was not significant. The main effect for socioeconomic status and self-esteem was significant ($p \leq .01$). Middle-status Ss scored significantly higher than low-status Ss.

There was a significant ($p \leq .01$) F ratio for school's socioeconomic composition and self-esteem. Ss in middle socioeconomic

TABLE 3

Analysis of Variance: Self-Esteem for Whites

Source	df	MS	F
Racial Composition (A)	2	5974.08	44.19**
Sex (B)	1	458.97	
Socioeconomic Status (C)	1	12364.09	91.45**
Socioeconomic Composition (D)	1	12398.15	91.70**
A X B	2	850.04	6.29**
A X C	2	191.48	
A X D	2	584.69	4.32**
B X C	1	372.38	
B X D	1	5.04	
C X D	1	.88	
A X B X C	1	29.76	
A X B X D	2	95.90	
A X C X D	2	239.19	
B X C X D	1	14.96	
A X B X C X D	2	43.35	
Within Cells	2729	135.00	

*$p \leq .05$

**$p \leq .01$

TABLE 4

White Pupils' Weighted Means and Standard Deviations for Self-Esteem by Independent Variable

Variable	$\bar{X}$	SD	N
Racial Composition			
More than 25% black	30.82	16.09	182
5-25% black	35.94	11.87	1268
Less than 5% black	38.66	11.74	1303
Sex			
Boys	36.53	12.69	1403
Girls	37.27	11.88	1350
Socioeconomic Status			
Low	32.78	11.21	773
Middle	38.49	12.35	1980
Socioeconomic Composition			
Low	34.50	12.12	1467
Middle	39.62	11.96	1286

status schools scored significantly higher than Ss in low socioeconomic status schools.

Two two-way interactions reached statistical significance: racial composition and sex ($p \leq .01$), and racial composition and socioeconomic composition ($p \leq .01$).

Table 5 presents the weighted means and standard deviations for levels of racial composition over sex.

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Insert Table 5 about here

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Figure 3 illustrates the A x B interaction.

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Insert Figure 3 about here

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Table 5 and Figure 3 reveal that self-esteem scores for both boys and girls increased as the percentage of black pupils in the school decreased. However, whereas the boys' mean was conspicuously lower than the girls' mean in schools where the proportion of black pupils was highest, the lines cross as boys' and girls' scores come together in schools where the proportion of black pupils was lowest.

Table 6 presents the weighted means and standard deviations for levels of racial composition over levels of socioeconomic

TABLE 5

White Pupils' Weighted, Self-Esteem Means and Standard Deviations by Racial Composition over Sex

Racial Composition	Sex					
	Boys			Girls		
	$\bar{X}$	SD	N	$\bar{X}$	SD	N
More than 25% black	28.10	16.18	95	33.78	15.47	87
5-25% black	36.33	12.26	659	36.58	11.43	609
Less than 5% black	38.96	11.86	649	38.36	11.64	654

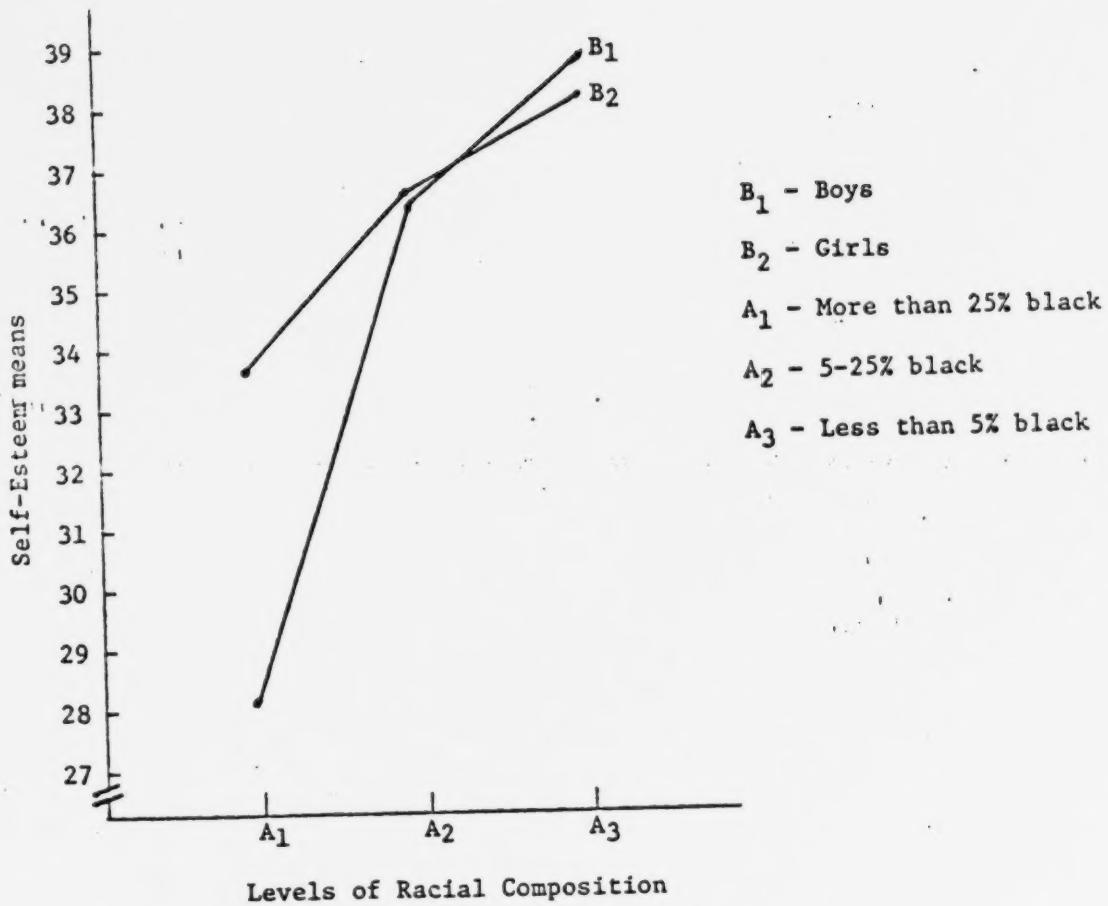

FIG. 3. Self-Esteem means for each level of Sex at each level of Racial Composition for white pupils. Original data given in Table 8.

composition.

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Insert Table 6 about here

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Figure 4 illustrates the A x D interaction.

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Insert Figure 4 about here

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Table 6 and Figure 4 reveal that self-esteem scores increased for Ss in both low-status and middle-status schools as the percentage of black pupils in the school decreased. However, for Ss in low-status schools, scores increased more sharply as the percentage of black pupils decreased from more than 25 to 5-25, whereas for Ss in middle-status schools, scores increased more sharply as the percentage of black pupils decreased from 5-25 to less than 5.

No three-way interaction was significant on self-esteem for white Ss.

Self-Esteem for Black Pupils

Table 7 summarizes the results of the four-way analysis of variance on self-esteem for black Ss.

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Insert Table 7 about here

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TABLE 6

White Pupils' Weighted, Self-Esteem Means and Standard Deviations by Racial Composition over Socioeconomic Composition

Racial Composition	Low Socioeconomic Composition			Middle Socioeconomic Composition		
	$\bar{X}$	SD	N	$\bar{X}$	SD	N
More than 25% black	30.46	16.22	169	35.38	13.66	13
5-25% black	34.63	11.28	718	37.63	12.42	550
Less than 5% black	35.50	11.48	580	41.20	11.32	723

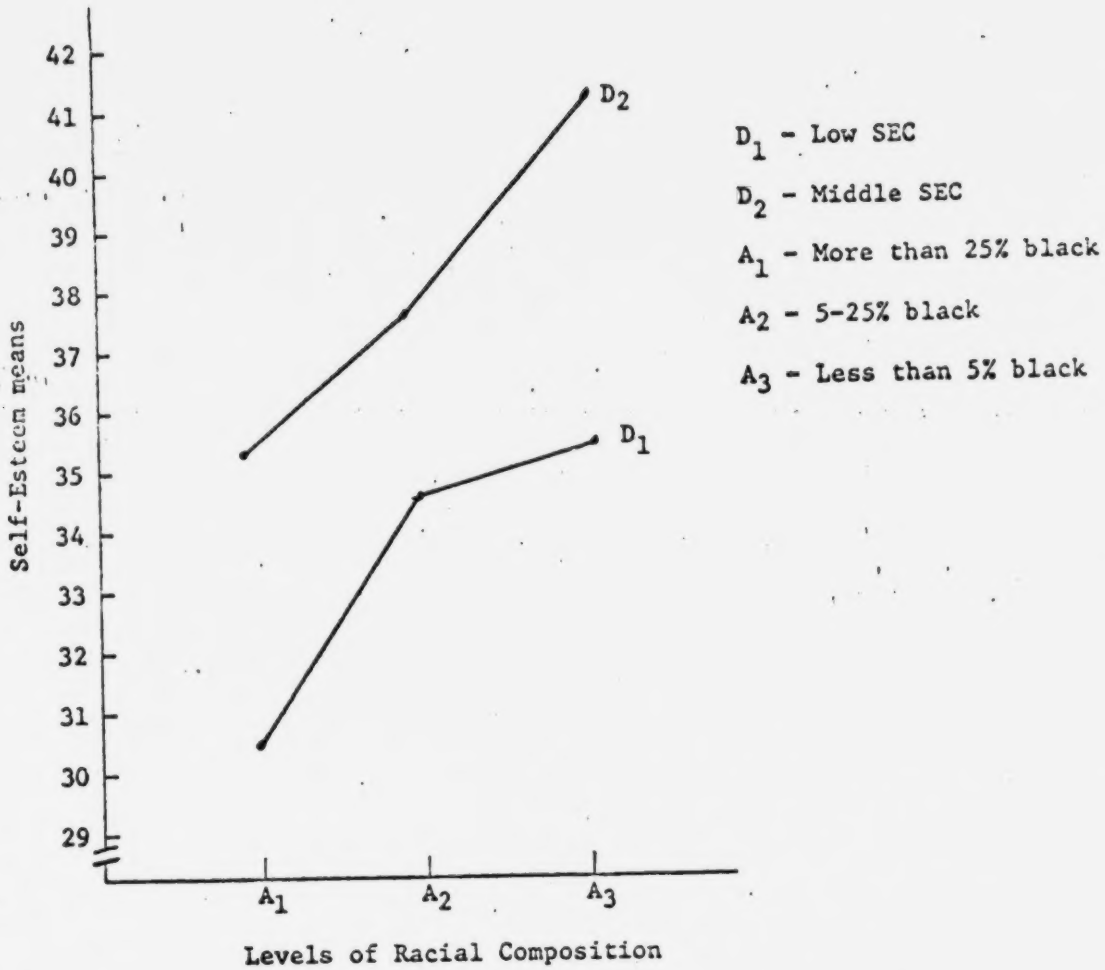

FIG. 4. Self-Esteem means for each level of Socio-economic Composition at each level of Racial Composition for white pupils. Original data given in Table 9.

TABLE 7

Analysis of Variance: Self-Esteem for Blacks

Source	df	MS	F
Racial Composition (A)	2	1436.90	4.50**
Sex (B)	1	31.82	
Socioeconomic Status (C)	1	1576.54	4.93**
Socioeconomic Composition (D)	1	2707.90	8.47**
A X B	2	805.28	
A X C	2	74.31	
A X D	2	319.80	
B X C	1	14.17	
B X D	1	22.55	
C X D	1	144.16	
A X B X C	1	486.24	
A X B X D	2	392.78	
A X C X D	2	23.39	
B X C X D	1	5.52	
A X B X C X D	2	245.67	
Within Cells	526	319.31	

*$p \leq .05$

**$p \leq .01$

Table 8 presents the weighted means and standard deviations for self-esteem for black Ss.

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Insert Table 8 about here

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There was a significant ($p \leq .01$) F ratio for pupil's self-esteem and school's racial composition. Table 8 reveals that Ss in schools where the proportion of black pupils was more than 50% scored highest in self-esteem. Ss in schools where the proportion of black pupils was less than 25% scored lowest in self-esteem.

The main effect for sex and self-esteem was not significant. The main effect for socioeconomic status and self-esteem was significant ($p \leq .05$). Middle-status Ss scored significantly higher than low-status Ss.

There was a significant ($p \leq .01$) F ratio for school's socioeconomic composition and self-esteem. Ss in middle socioeconomic status schools scored significantly higher than Ss in low socioeconomic status schools.

No two-way or three-way interactions were significant on self-esteem for black Ss.

TABLE 8

Black Pupils' Weighted Means and Standard Deviations for Self-Esteem by Independent Variable

Variable	$\bar{X}$	SD	N
Racial Composition			
More than 50% black	34.37	20.19	309
25-50% black	29.30	14.41	68
Less than 25% black	27.64	17.07	173
Sex			
Boys	31.71	18.73	269
Girls	32.17	18.05	281
Socioeconomic Status			
Low	29.75	17.99	206
Middle	33.25	18.51	344
Socioeconomic Composition			
Low	33.36	19.68	342
Middle	29.61	15.78	208

Discussion

Do the results support the research hypotheses? The statistical relationships (main effects) between the self-esteem and the social variables were as follows:

White Pupil's Self-Esteem

		Results
A	School's Racial Composition	Scores decreased as the proportion of black pupils increased
B	Pupil's Sex	No significant differences
C	Pupil's Socioeconomic Status	Middle-status pupils scored higher
D	School's Socioeconomic Composition	Pupils in middle socioeconomic status schools scored higher

Black Pupil's Self-Esteem

		Results
A	School's Racial Composition	Scores increased as the proportion of black pupils increased
B	Pupil's Sex	No significant differences
C	Pupil's Socioeconomic Status	Middle-status pupils scored higher
D	School's Socioeconomic Composition	Pupils in low socioeconomic status schools scored higher

Self-Esteem for White Pupils

The significant relationship between pupil's self-esteem and school's racial composition was not expected. The self-esteem of white pupils decreased as the proportion of black pupils in the school increased. Two significant interactions, one between racial composition and sex, and one between racial composition and school's socioeconomic composition, clarified further the results.

Zirkel & Moses (1971), O'Reilly (1969), and Coleman et al., (1966) concluded that white Ss are not adversely affected by attending integrated schools. The significant relationships between self-esteem and school's racial composition in the present study do not support these researchers' conclusions. In making implications from the results, however, caution must be exercised. Cause and effect cannot be inferred from significant relationships.

Why do white pupils feel less worthy about themselves when one-fourth or more of their classmates are black? Is the white pupil saying that, if society has labeled blacks as less worthy and there are many black pupils in his class, then he also must be less worthy?

Perhaps the more segregated white schools differ from the more integrated schools in terms of programs, facilities, quality of teachers, or administrative climate, and these differences are beneficial to white pupils' self-esteem. Whether or not integrated and segregated schools do in fact differ on other school factors and whether or not these factors relate to self-esteem should be further studied.

The main effect on self-esteem for sex was not significant. The data do not support the hypothesis. However, the interaction effect between sex and racial composition on self-esteem was significant. In schools in which the proportion of black pupils was more than 25%, girls scored higher. Why do girls in more integrated schools feel more sure about themselves than boys and why do boys in less integrated schools feel as sure about themselves as girls? Additional research is needed.

Middle-status pupils scored significantly higher in self-esteem than low-status pupils. The data support the hypothesis. This relationship was not altered by the racial and socioeconomic compositions of the school or by pupil's sex. The data imply, on the one hand, that a pupil's family background characteristics help define his personal judgment of self-worthiness. On the other hand, Crandall (1963), Clausen & Williams (1963), and Peck (1971) showed that, for the socially- and economically-disadvantaged child, the typical school learning environment may represent an imposing set of stressful or anxiety-inducing circumstances. The question which schools must answer is: Are there factors in the school environment, such as attitudes of teachers and administrators or certain program materials and group activities, which support feelings of inadequacy in low-status pupils?

Pupils in middle socioeconomic status schools scored higher than pupils in low socioeconomic status schools in self-esteem. The data support the hypothesis. This finding is clarified further by a

significant interaction between socioeconomic composition and racial composition. O'Reilly (1969) concluded that schools are more likely to be educationally effective if the proportion of lower-status pupils in the school does not exceed roughly 30%. For the present study, schools in which one-third or more of the pupils came from low-status backgrounds were classified as low socioeconomic status schools. O'Reilly's (1969) conclusion is supported in the present study.

Self-esteem scores were lower for Ss in low-status schools than for Ss in middle-status schools across all levels of racial composition, but for both groups self-esteem was inversely related to the proportion of black pupils in the school.

Levin (1968) observed that family background characteristics of a set of pupils determine not only the advantages with which they come, but also are associated closely with the amount and quality of resources invested in the school. Whether or not the quality of resources in low-status schools, particularly those with sizeable proportions of black pupils is in fact inferior, and whether or not quality of resources relates significantly to pupil's self-esteem requires further study.

Self-Esteem for Black Pupils

Self-esteem increased as the proportion of black pupils in the school increased. The data support the hypothesis. Black pupils' self-esteem was highest in majority black schools and lowest in majority white schools.

Coleman et al. (1966) found that, when black pupils became

part of an integrated school system, their self-concepts diminished. Why do black pupils feel less self-worth when the number of black pupils in the school is less than one-fourth? It may be that black pupils feel their minority status more intensely, a status that society has labeled inferior, when they are in majority white schools. It may be also that in majority black schools black pupils have more of an opportunity to become leaders and to assert themselves in positive ways.

Additional research relating other school factors to black pupils' self-esteem is needed. It is interesting to note that for each of the two groups, white pupils and black pupils, self-esteem increased as the proportion of racially different pupils decreased.

Girls' and boys' self-esteem did not differ significantly. The data do not support the hypothesis.

Ausubel and Ausubel (1963), and Deutsch (1967) showed that black girls enjoyed more academic advantages than black boys. The present findings suggest, however, that boys were not characterized by lesser self-esteem.

Middle-status pupils showed higher self-esteem then low-status pupils. The data support the hypothesis. The finding was not altered by the racial and social compositions of the school or by pupil's sex. The data indicate that low-status black pupils have feelings of inferiority about their worth as individuals, in comparison to middle-status black pupils, just as low-status white pupils have feelings of inferiority in comparison to middle-status white pupils. The finding illustrates that social class differences

have effects in the black population similar to those in the white population. Researchers should avoid labeling all black pupils as "disadvantaged" and should take into account the social class differences that do exist.

Self-esteem related significantly to school's socioeconomic composition but not in the hypothesized direction. Black pupils in low socioeconomic status schools showed significantly higher self-esteem than black pupils in middle socioeconomic status schools. O'Reilly's (1969) conclusion that schools are more effective if less than 30% of the pupils are from low-status backgrounds did not apply for the black sample as it applied for the white sample.

Why do black pupils feel more self-worth when one-third or more of their peers are from low-status families? Coopersmith (1969) stated that children learn to evaluate themselves on the basis of such referents as appearence, group memberships, achievements, and aspirations. When black pupils attend a low socioeconomic status school, they evaluate themselves more positively. Soares and Soares (1969) found significantly more positive self-perceptions associated with minority group pupils in a school in a socioeconomically disadvantaged area, in contrast to the majority of white pupils in a school in a socioeconomically advantaged area. They explained their findings by the proposition that, when disadvantaged pupils are exposed only to other disadvantaged people in school as well as at home, they are functioning according to expectations by teachers and parents. Hence, they are satisfied with themselves. The present findings support the Soares and Soares data. If their proposition

is correct, however, one must question whether the higher degree of self-satisfaction black pupils feel in low-status schools is conducive to pupil's growth.

Conclusions

School districts can neither control nor alter the race, the sex, or the social status of their pupils. They can, in some instances, exert some control over the racial and socioeconomic compositions of elementary school buildings. They can, in most instances, exert control over the selection of teachers, the amount and quality of resources in any one building, and the types of programs offered. The results of the present study offer implications for pupils' assignments to buildings, as well as implications for the selection of teachers, the allocation of resources, and the offering of special programs. Caution must be exercised in interpreting the results, however, since the study was not experimental.

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